

AIRBRUSHING ACRYLIC PAINTS FOR MODEL RAILROADERS

AN INTRODUCTION

BY BILL HUEBNER

OUTLINE OF CLINIC

- 1. EQUIPMENT
 - A. Airbrushes
 - B. Sources of Air
 - C. Primers
 - D. Paint
 - E. Thinners

OUTLINE OF CLINIC (CONT.)

- 2. CLEANING (EQUIPMENT AND TECHNIQUES)
- 3. THINNING OF PAINTS
- 4. BASIC AIRBRUSHING TECHNIQUES
- 5. LIST OF INSTRUCTIONAL WEBSITES
- 6. LIST OF SUPPLIERS

TYPES OF AIRBRUSHES

- External Mix vs. Internal Mix
- Siphon Feed vs. Gravity Feed
- Single Action vs. Double Action



Siphon Feed and External Mix

SINGLE ACTION

Inexpensive Paascha Airbrush



**Siphon Feed and Internal Mix
(Double Action)**
Another Paasche



Gravity Feed and Internal Mix
Example 1 of 2. This is a Paasche.



Gravity Feed and Internal Mix

**Example 2 of 2. Harder & Steenbeck –
Infinity CR+ - Two in One (0.2 mm and
0.4 mm needles and tips).**



Gravity Feed and Internal Mix

Same H&S Infinity airbrush, different picture

COMPARISON OF FOUR TYPES OF AIRBRUSHES

	SIPHON	GRAVITY
EXTERNAL	N	N/A
INTERNAL	N	YES!

Single Action vs. Double Action

- There is another characteristic to consider. Cheaper, simpler airbrushes are single action. This means, when you pull the trigger back, you only control the amount of air passing over the tip.
- In contrast, better airbrushes, all have double action triggers which allow you to control both the amount of air and paint.
- **SUMMATION: GET, GRAVITY FEE, INTERNAL MIX, DOUBLE ACTION**

MAJOR AIRBRUSH MFG. IN DESCENDING ORDER

- 1. Harder & Steenbeck
- 2. Iwata
- 3. Paasche
- 4. Badger
- 5. Any \$20 airbrush manufactured on a continent is still forming. Remember,
“sometimes you do NOT get what you pay for.”

Final Purchase Thoughts

1. Double action not single action.
2. Internal mix and gravity feed design.
3. Purchase one of the two top brands.
4. Finally, and this point is for all you frugal model railroaders out there – Do NOT take a 40% coupon and go to Hobby Lobby and think you are going to get a deal! I've looked many times - you will not get a deal.

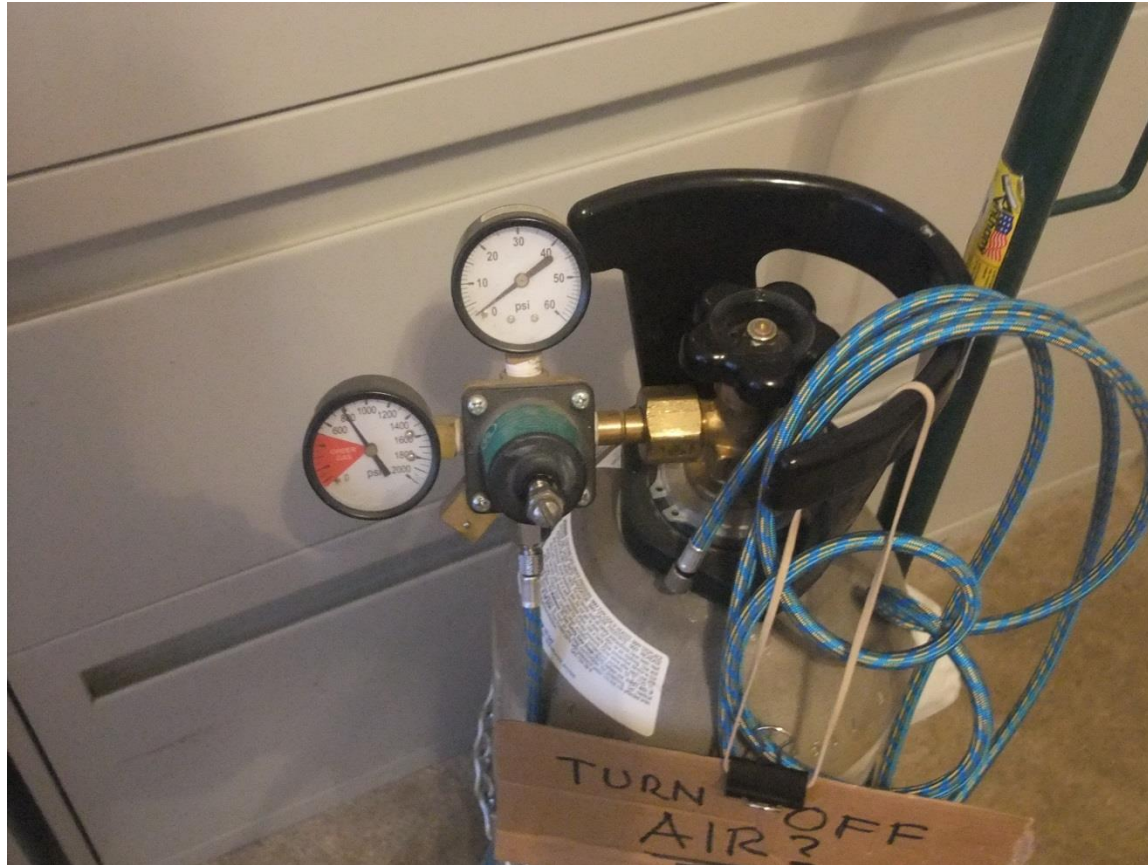
1. b. SOURCES OF AIR

- 2 SOURCES. COMPRESSOR with a storage tank, OR COMPRESSED CO2 TANK.
- 1. COMPRESSOR: Easier to set-up initially, more expensive, requires water and dirt traps, has other uses.
- 2. Compressed CO2 tank. More work initially to set up, less expensive overall, can be used anywhere, always pristine air pressure - no dirt or moisture traps needed.



EXAMPLE OF MY CO2 TANK

20 LB TANK WITH SMALL HAND TRUCK EXTRA
CREDIT QUESTION: WHY DO I HAVE MY LITTLE
SIGN ON A DETACHABLE HOOK? I.E., IT IS
MOVEABLE WHERE MIGHT I PUT IT?



DETAIL OF THE REGULATOR NEEDED ON A TANK

THE TANK HAS ABOUT 600 LBS OF PRESSURE. THE REGULATOR IS THE TYPE USED TO CHARGE SOFT DRINK DISPENSERS .I BOUGHT MINE AT GRAINGERS.

FINAL THOUGHTS ON SOURCES OF AIR

- EITHER CHOICE IS FINE. IF I WERE TO DO IT AGAIN, I WOULD NOT GET A 20 LB TANK, INSTEAD I WOULD GET A SMALL 5 LB TANK AND PLACE IT ON OR NEAR MY WORKBENCH AVOIDING THE CUMBERSOME HAND TRUCK
- SEE, [CO2 For Airbrushing](#) BY Brett G on YouTube.

1. c. PRIMERS

- RATTLE CANS
- VALLEJO SURFACE PRIMERS
- **STYNYLREZ** (BY BADGER) MORE ON THIS LATER. REMEMBER YOU MUST FIRST PRIME EVERYTHING. ALSO, THE BASE COAT IS THE PAINT WHICH COMES ON *AFTER* THE PRIMER

V 1

1. d. PAINT

- VALLEJO, MODEL AIR, MODEL COLOR, PANZER ACES, WASHES
- STYNNLYREZ FOR PRIMING

-

V 2

1. e. THINNERS (or OTHER HANDY FLUIDS)

- DISTILLED WATER
- WINDEX, THINNED IS FINE
- AIR BRUSH THINNER
- AIR BRUSH CLEANER
- FLOW IMPROVER

2. CLEANING

- DO IMMEDIATELY AFTER YOU ARE DONE SPRAYING ONE CUP. CLEAN BETWEEN REFILLS
- CLEAN THE CUP BY DUMPING THE RESIDUE IN A TRASH BOX (DO NOT SPRAY OLD PAINT AND CLEANER THROUGH THE AIR BRUSH)
- DO NOT USE BACK PRESSURE TO CLEAN THE AIR BRUSH. IF THE TIP CLOGS, DISASSEMBLE
- WASH THE CUP OUT REPEATEDLY BEFORE SPRAYING ANY CLEANER THROUGH THE TIP.
- INVEST IN A SONIC CLEANER AND OCCASSIONALLY CLEAN ALL PARTS IN A WINDEX SOLUTION

3. THINNING AND AIR PRESSURE

- EXPERIMENT WITH THINNING. EVEN IF IT SAYS YOU DO NOT NEED TO THIN, START WITH ABOUT 20 PERCENT THINNER TO 80 PERCENT PAINT. REMEMBER TO PUT THE THINNER IN THE CUP FIRST, THEN THE PAINT, THEN STIR.
- DIFFERENT COLOR PAINTS BY THE SAME MFG. WILL REQUIRE DIFFERENT AMOUNTS OF THINNER. TRY TO PUT IN THE LEAST AMOUNT BEFORE IT BEGINS TO CLOG
- EXPERIMENT – START WITH TOO MUCH RATHER THAN TOO LITTLE THINNER. TEST FIRST!

3. b. Q. BUT BILL, WHAT AIR PRESSURE DO I USE?

- A. THIS ANSWER WILL ONLY BE GIVEN TO THOSE WHO KNOW THE SECRET HAND SHAKE. THIS IS A WELL GUARDED SECRET WHICH ONLY THE INITIATED HAVE THE ANSWER TO, LIKE ALCHEMIST KNOWING HOW TO TURN LEAD INTO GOLD.

4. BASIC AIRBRUSHING TECHNIQUES

- EXPERIMENT WITH THINNER AND PAINT ON SCRAP MATERIAL BEFORE PAINTING YOUR MODEL
- ALWAYS, ALWAYS, ALWAYS, USE PRIMER
- PUT ON SEVERAL LIGHT COATS RATHER THAN ONE THICK COAT
- START WITH A MATTE (FLAT) FINISH RATHER THAN HAVING TO USE DULLCOAT LATER, THIS JUST COVERS DETAILS, USE AS FEW COATS AS POSSIBLE TO MAINTAIN CRISP DETAILS

4. BASIC AIRBRUSHING TECHNIQUES (CONTINUED)

- YOU CANNOT GET GREAT RESULTS WITH CHEAP TOOLS OR MATERIALS
- IF YOU ARE SERIOUS SPEND A LITTLE MORE AND AVOID ENDLESS TRIALS AND TRIBULATIONS
- YOUTUBE IS YOUR FRIEND. THERE IS A TON OF GREAT MATERIAL OUT THERE. DO NOT WORRY IF THE BLOGGERS ARE PAINTING MODELS OF GANDALF OR LUKE SKYWAKER, OR EVEN THE IMPERIAL FALCON, START WITH MILITARY AND VEHICLE MODELERS, DO NOT BOTHER LOOKING AT MODEL RAILROAD BLOGS FOR INFO ON THIS SUBJECT - FORGET ANYTHING YOU'VE SEEN OR READ IN MODEL RAILROADER ETC.

4. BASIC AIRBRUSHING TECHNIQUES (CONTINUED)

- KEEP YOUR TIP CLEAN, KEEP A BRUSH WITH THINNER AND A COTTON BUD (Q-TIP) HANDY TO QUICKLY CLEAN OFF THE TIP, GET IN THE HABIT OF DOING THIS EVERY MINUTE OR SO TO AVOID TIP DRY
- EXPERIMENT WITH DIFFERENT AIR PRESSURES, THIS WILL CHANGE WITH: PAINT MFG, PAINT PIGMENT, TEMPITURE, HUMIDITY, PHASE OF THE MOON, TYPE OF AIR BRUSH, SIZE OF TIP, WHETHER VENUS IS ALLIGNED WITH MARS

4. BASIC AIRBRUSHING TECHNIQUES (CONTINUED)

- AIR PRESSURE: I GENERALLY START AT 20 PSI. THE NORMAL RANGE CAN BE ANYWHERE FROM 12 PSI UP TO 30 PSI. AS LONG AS THE PAINT SPRAYS PROPERLY, LOWER PRESSURE IS BETTER THAN HIGHER AS THE PAINT TENDS TO DRY ON THE TIP FASTER AT HIGHER PRESSURE

4. BASIC AIRBRUSHING TECHNIQUES (CONTINUED)

- FINAL THOUGHT: WHEN THE AIR BRUSH JUST WILL NOT WORK. STOP. CLEAN OUT THE CUP, DISSASSEMBLE THE BRUSH ENTIRELY, CLEAN ALL PARTS, PREFERABLY IN AN ULTRA SONIC CLEANER, THEN BEGIN AGAIN, BUT USE MORE THINNER! ITS MOST LIKELY THE PAINT WAS TOO THICK, ALSO ADD A DROP OF FLOW IMPROVER
- REMEMBER, IT IS BETTER TO START WITH THE PAINT THINNED TOO MUCH RATHER THAN TOO THICK (CONSISTANCY OF SKIM MILK) V 5

5. LIST OF WEBSITES

- 1. YOUTUBE:
 - **VALLEJO ACRYLICS TECHNIQUES PARTS 1 THROUGH 4 toddw14**
 - FLORYMODELS
 - GENESSIS MODELS
 - DOCTOR CRANKY'S LAB-RAT-ORY
 - BRETT G
 - CHRISANDALEXMODELING
 - TACTICAL JACKALOPE
 - SCALE WAR MACHINES

6. LIST OF SUPPLIERS

- www.thewarstore.com paint
- www.scalehobbyist.com paint
- www.air-craft.net I found the best price on my H&S Airbrush at this UK site. Brexit saved me 37% overnight! Martin is the contact person – very responsive – Do not worry about the VAT tax.
- Micro-mart for the Micro-lux paints (Floquil replacement)
- Chicago Airbrush has all makes of airbrushes, but not the best prices